

Appl. No.: 09/826,697
Amdt. dated July 11, 2005
Reply to Office Action of March 10, 2005

PATENT

Remark

The Applicant respectfully requests reconsideration of this application as amended. In this amendment, Applicant has amended claims 1-5, 7-10, 12-14, 16-18, and 20-22. No claims have been cancelled. Claims 6, 11, 15, 19 and 23 remain unchanged by this amendment. Three claims, claims 24-26 have been added. Hence, claims 1-26 are pending in this application after the filing of this amendment. Applicant submits that no new subject matter has been added by these amendments.

Claim Rejections – 35 U.S.C. § 102

In the Office action, the Office rejected claims 1, 2, 4, 5, 7, 8, 10, 12-14, 16-18, and 20-22 under 35 U.S.C. 102(e) for allegedly being anticipated by U.S. Pat. No. 6,707,827 of Shaffer et al (hereafter "Shaffer"). The Applicant respectfully disagrees with the Office's characterization of Shaffer and points out several distinctions between the claimed subject matter and the teachings of Shaffer.

As presently understood by the Applicant, Shaffer generally relates to the dynamical optimization of one or more parameters of an audio component of a source and destination computer to improve the quality of voice signals transmitted on a telephony-over LAN system. (col. 2, ll. 38-41) Specifically, Shaffer relates to the exchange of audio component data between a call source computer and a call destination computer on the network. Once the source and destination computers know the audio component data of the corresponding computer system with which they are to communicate, the audio components are dynamically programmed to optimize the transmitted sound quality for that particular call. (col. 1; ll. 49-57)

The Applicant agrees with the Office's comments on pages four and five of the Office action that Shaffer does not disclose: (1) generating a call history of the component based on the status information or measuring of the recording; (2) the audio file is a WAV file; (3) the digital audio file is contained in a digital audio store. In addition, the Applicant has found no teaching or reasonable suggestion in Shaffer of at least the following: (1) a diagnostic procedure used to identify one or more software clients or hardware modules among network resources that

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reside in the transmission path as a likely cause of the problem; (2) determining a path from a VoIP client to a destination node, wherein the path includes the one or more possible faulty components identified by the diagnostic procedure; (3) sending a digital audio file from the VoIP client to the destination node through the determined path; and (4) determining if one of the one or more possibly faulty components is faulty.

Simply, Shaffer teaches measuring the gain and distortion of the audio signals created by an end computer's own audio equipment, for example a sound card in the computer. (col. 4, ll. 28-38) Simply, the idea purportedly disclosed is related to "tuning" destination components in order to optimize audio response. (see figures 2A and 2B) In contrast, the embodiments in the Applicant's claims relate to analyzing the path across which the digital audio file travels and possibly isolating the faulty component in the path.

With this brief overview of Shaffer, the Applicant now submits the following arguments to point out significant differences between the invention as claimed by the Applicant and Shaffer.

Referring now to claim 1, claim 1 as amended recites:

A method of testing the Quality of Service (QoS) of voice transmissions in a voice-over-IP network path comprising:

- performing a diagnostic procedure to identify one or more possibly faulty components among a plurality of network resources that reside in a plurality of transmission paths;

- determining a path of the plurality of transmission paths from a VoIP client to a destination node, the path including at least one of the one or more possibly faulty components identified by the diagnostic procedure;

- sending a digital audio file from the VoIP client to the destination node through the determined path;

- measuring characteristics of the digital audio file at the destination node to analyze the QoS of the transmission; and

- determining if one of the one or more possibly faulty components in the determined path is faulty.

Claim 1 as amended expressly recites the following: (1) "performing a diagnostic procedure to identify...faulty components...that reside in a transmission path;" (2) "determining

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a path...wherein the path includes one or more of the faulty components;" and (3) "determining if one of the one or more possibly faulty components is faulty."

Shaffer does not teach or reasonably suggest any of these elements. First, Shaffer teaches adjusting the audio components of the source and/or destination computer to optimize the components. To do this Shaffer teaches a source and/or destination computer exchanging information concerning gain and frequency characteristics of the audio components of each participating computer. (abstract) This is not the same as performing a diagnostic procedure to identify...faulty components...that reside in the transmission path, because, in Shaffer, characteristics of the components of the participating computers are exchanged whether the components are working properly or not.

Second, the Applicant can not find a teaching or reasonable suggestion in Shaffer that a path is determined, which contains a possible faulty component, and/or the transmission is routed over that determined path. Because Shaffer is concerned with optimization of audio components at the destination computer, the particular network path that Shaffer's data follow is immaterial to Shaffer's system.

In addition, Shaffer does not determine if one of the possibly faulty components is faulty; Shaffer teaches adjusting parameters of audio components. Consequently, for at least these reasons, claim 1 is distinguishable over Shaffer. Since dependent claims 2-9 inherit all the limitations of claim 1, these claims are also distinguishable over Shaffer for at least the same reasons as presented for claim 1.

Claims 16 and 20 as amended are distinguishable over Shaffer for at least reasons similar to those presented for claim 1. Since dependent claims 17-19 and 21-23 inherit all the limitations of claim 16 and 20, respectively, these claims are also distinguishable over Shaffer for at least the same reasons as presented for claim 1.

Referring now to claim 10, claim 10 as amended is distinguishable over Shaffer because Shaffer fails to teach or reasonably suggest all of the elements recited in claim 10. Specifically, the Applicant can find no teaching or reasonable suggestion in Shaffer of at least the following: (1) "a test tool capable of performing a diagnostic procedure to identify...possibly faulty components...that reside in a plurality of transmission paths between the source node and

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the destination node;" and (2) "an analyzer...to measure characteristics of a digital audio file received by the destination node and determine if one or more of the...possibly faulty components...is faulty."

As previously discussed, the Applicant can find no teaching or reasonable suggestion in Shaffer of a diagnostic procedure to identify possibly faulty components. In addition, the Office suggests that "an analyzer...to measure characteristics of a digital audio file received by the destination node" is taught by col. 4, ll. 28-30 of Shaffer. These lines state that "[e]ach computer runs software that measures gain and distortion of the *audio signals created by its sound card*." (emphasis added) This is not measuring characteristics of a digital audio file received by the destination node as recited in claim 10, but instead is measuring characteristics of the sound card on the destination computer. In addition, Shaffer does not teach or reasonably suggest an analyzer that determines "if one or more of the...possibly faulty components...is faulty" since Shaffer is neither discussing fault detection (only how to optimize audio equipment on a computer) nor a varying transmission paths.

As such, claim 10 is distinguishable over Shaffer. Since dependent claims 11-15 inherent all the limitations of claim 10, these claims are also distinguishable over Shaffer for at least the same reasons as presented for claim 10.

Claim Rejections – 35 U.S.C. § 103

The Office rejected claims 3 and 9 under 35 U.S.C. 103(a) as being allegedly unpatentable over Shaffer in view of U.S. Pat. No. 6,570,969 of Abal (hereafter "Abal"). The Applicant respectfully disagrees with the Office's characterization of Shaffer and Abal and points out several distinctions between the claimed subject matter and the teachings of Shaffer and Abal.

As presently understood by the Applicant, Abal generally relates to methods of creating a call usage record in response to a received input signal. (Abstract)

Since claims 3 and 9 are ultimately dependent on claim 1, they inherit all the limitations of claim 1. At least as described above, Shaffer fails to teach the use of at least the following: (1) a diagnostic procedure used to identify one or more software clients or hardware

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modules among network resources that reside in the transmission path as a likely cause of the problem; (2) determining a path from a VoIP client to a destination node, wherein the path includes the one or more possible faulty components identified by the diagnostic procedure; (3) sending a digital audio file from the VoIP client to the destination node through the determined path; and (4) determining if one of the one or more possibly faulty components is faulty. As presently understood by the Applicant, Abal does not teach or reasonably suggest use of any of these missing elements. As a result, Abal does not remedy the deficiencies of Shaffer with respect to claims 3 and 9. For at least this reason, claims 3 and 9 are distinguishable over the combination of Shaffer and Abal.

The Office rejected claims 6, 15, 19 and 23 under 35 U.S.C. 103(a) as being allegedly unpatentable over Shaffer in view of U.S. Pub. No. 2003/0009306 A1 of Fang (hereafter "Fang"). The Applicant respectfully disagrees with the Office's characterization of Shaffer and Fang, and points out several distinctions between the claimed subject matter and the teachings of Shaffer and Fang.

As presently understood by the Applicant, Fang generally relates to using voice commands to invoke a diagnostic tool. (abstract; [0007]) Various input requests and results are translated from and to voice files to facilitate an easier interface with the end user. ([0020-0026])

There is no motivation to combine Shaffer and Fang. There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. MPEP 2143.01. In this case, the nature of the problem to be solved in Shaffer is quite different from the nature of the problem to be solved in Fang. Shaffer teaches the optimization of audio components of computers while Fang suggests using voice commands to invoke a diagnostic tool. In addition, neither Shaffer nor Fang give any motivation to combine the two references. The Office asserts that paragraph [0026] of Fang teaches an audio file that is a WAV file. However, the paragraph states that "the *voice* file is [sic] corresponds to the menu 80 in WAV or any other format." As taught by Fang, *the voice file corresponds to a menu selection* to aid in a voice invoked diagnostic tool. In contrast, the audio file recited in claims 6, 15, 19, and 23 relates to an audio file that is sent from one node to another, to aid in diagnostic testing of

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components in a transmission path. Hence, Shaffer and Fang, either separately or in combination, fail to teach or suggest all the elements of any of claim 6, 15, 19, or 23.

At least as described above, Shaffer teaches the optimization of audio components of computers. As presently understood by the Applicant, Fang does not teach or reasonably suggest use of any of the elements missing in the independent claims that have been previously discussed. As a result, Fang does not remedy the deficiencies of Shaffer with respect to claims 6, 15, 19, and 23. Consequently, the combination of Shaffer and Fang is no more relevant to isolating faulty components than either taken alone. For at least these reasons, claims 6, 15, 19, and 23 are distinguishable over the combination of Shaffer and Fang.

Furthermore, the motivation provided by the Office on page 5 of the current Office action to combine Shaffer and Fang is lacking as the Office is using impermissible hindsight to piece elements of the Applicant's claims together. The Office states that "at the time of the invention it would have been obvious...to utilize a WAV format for the audio file in Shaffer, since Fang teaches it is well known in the art to utilize an audio file comprising a WAV format and since Fang provides improved diagnosis for the network." However, Shaffer relates to optimizing audio components while Fang generally relates to voice interactive diagnostic tools. The Applicant can find no teaching or reasonable suggestion, and the Office has not pointed to any location, in either reference that *a file sent from one destination to the another* should be a WAV file.

For at least these reasons, claims 6, 15, 19, and 23 are distinguishable over the combination of Shaffer and Fang.

The Office rejected claim 11 under 35 U.S.C. 103(a) as being allegedly unpatentable over Shaffer in view of U.S. Pat. No. 6,437,229 of Nobumoto (hereafter "Nobumoto"). The Applicant respectfully disagrees with the Office's characterization of Shaffer and Nobumoto and points out several distinctions between the claimed subject matter and the teachings of Shaffer and Nobumoto.

As presently understood by the Applicant, Nobumoto generally relates to equipment and process for digitizing, storing, accessing, and listening to music in a commercial

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establishment which sells compact discs (CD) so that customers may listen to all the songs from all the CDs available in the shop. (col. 1; ll. 6-12)

Applicant traverses the Office's assertion that "it would have been obvious...to apply the teachings of Nobumoto to that of Shaffer in order to provide computer access to a plurality of digital music file with reduced cost".

At least as described above, Shaffer teaches the optimization of audio components of computers. In contrast, Nobumoto teaches equipment and process for digitizing, storing, accessing, and listening to music in a commercial establishment which sells compact discs (CD) so that customers may listen to all the songs from all the CDs available in the shop. (col. 1; ll. 6-12) Consequently, the combination of Shaffer and Nobumoto is no more relevant to testing the QoS of network resources in a network path than either taken alone.

Not only does the combination of Shaffer with Nobumoto not result in the invention as recited by claim 11, but the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. None of the references cited by the Office provide motivation for at least the combination of Shaffer with Nobumoto. The Office indicates on page 6 of the Office action that "it would have been obvious...to apply the teachings of Nobumoto to that of Shaffer in order to provide computer access to a plurality of digital music files with reduced costs." However, the Office must consider the references in their entirety. Again, Nobumoto teaches equipment and process for digitizing, storing, accessing, and listening to music *in a commercial establishment which sells compact discs (CD) so that customers may listen to all the songs from all the CDs available in the shop*, while Shaffer teaches the *optimization of audio components of computers*. As such, the nature of the problem to be solved in Nobumoto is quite different from the nature of the problem to be solved in Shaffer.

Consequently, for at least the reasons presented, claim 11 is distinguishable over the combination of Shaffer with Nobumoto.

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Claims

New Claims

By this amendment, three new claims, claims 24-26, have been added to claim additional novel aspects of the present invention and/or round out the depth of the claim coverage. Applicant respectfully submits that new claims 24-26 are allowable over the prior art. Applicant submits that no new matter has been added by the addition of the new claims.

Specifically, support for claim 24 may be found on page 3, lines 10-14 of the application as filed. Support for claim 25 may be found on page 6, lines 10-14 of the application as filed. Finally, support for claim 26 may be found on page 3, lines 29-30 and page 4, line 1 of the application as filed.

Claim Amendments

Applicant has amended some of the claims to more clearly claim subject matter of the invention. Applicant submits that these amendments are for clarification purposes only, and do not limit or narrow the claims in any way. Indeed, in some instances, the amendments broaden the claims. In any event, Applicant submits that the claims still are allowable over the prior art, and thus Applicant respectfully requests the Office to promptly issue a Notice of Allowance.

Conclusion

Applicant respectfully submits that the amendment and remark have overcome the rejections, and that the pending claims are in condition for allowance. Accordingly, Applicant requests that the rejections be withdrawn and that a Notice of Allowance be issued for

Request for a Telephone Interview

If the Office believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-447-7739.

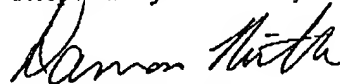
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Enclosed is a PTO Credit Card Payment Form 2038 in the amount of \$120.00 to cover the necessary 1-month extension fee under 37 C.F.R. 1.17(a). Please charge our Deposit Account No. 06-0029 for any additional charge associated with such an extension.

Respectfully submitted,



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